

January 31, 2019



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 20355
(FIRST REVISION)

EXPIRATION DATE: 2022-10-31

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Energys Advanced Systems Inc.
Horsham, PA
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of lithium metal cells that are of a type not proven to meet the requirements of the UN Manual of Tests and Criteria. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
 - c. No party status will be granted to this special permit.
 - d. This special permit serves as an "approval" as defined in 49 CFR 171.8, and as an "exemption" as defined in 1;3.1.1 of the ICAO TI. The most recent revision supersedes all previous revisions.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.185(a)(1) in that the cells are not of a type tested in accordance with the UN Manual of Tests and Criteria.

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5. BASIS: This special permit is based on the application of Energysys Advance Systems Inc. dated November 18, 2018, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Lithium metal batteries	9	UN3090	N/A

7. SAFETY CONTROL MEASURES:

a. Safety Controls:

(1) The G3201A1 lithium metal (reserve) cell, used for military applications for the Department of Defense (DOD) and Allied Governments, is a hermetically sealed, stainless steel container with no voltage, due to the fact that the lithium metal and electrolyte are stored separately inside the same housing; therefore, not all of the UN tests are appropriate for this type of cell. The cell is designed to generate the following capacity when activated by external means (i.e., mechanical, g-force or electrical power) at user location.

(i) Voltage (V): 2.0 to 4.3

(ii) Current (mA): 20

(iii) Capacity (mAh): 3.4

(2) This Special Permit is only valid for transportation of reserve cells which contain lithium metal and electrolyte in separate chambers in the non-activated state.

b. Testing: All G3201A1 lithium metal (reserve) cells must have successfully passed the requirements specified in MIL-STD-331 (Vibration, Extreme Temperature Storage and Drop Tests) as specified in the application dated September 28,

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2016 and on file with the Office of Hazardous Materials Safety Approvals and Permits Division.

c. Packaging: The prescribed packaging for transporting the G3201A1 lithium metal (reserve) cells are described below:

(1) Inner Packaging - Tray containing not more than one hundred cells.

(2) Intermediate Packaging - UN 4G fiberboard box containing not more than ten (10) inner packagings.

(3) Outer Packaging - UN4G fiberboard box that meets the Packing Group II performance criteria and containing not more than one (1) intermediate packaging surrounded by cushioning material and sealed with reinforced tape.

(4) The gross weight of the package may not exceed 35 kg.

d. Marking Requirements: Each package, and overpack if used, prepared under the provisions of this Special Permit must be plainly marked with the permit number: DOT-SP 20355.

8. SPECIAL PROVISIONS:

a. Under the terms of this special permit, the holder may only offer hazardous materials (i.e., the approval holder is not authorized as a carrier).

b. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.

c. A current copy of this special permit must be maintained and made available for examination at each facility where the materials are package and offered or reoffered for transportation.

d. This special permit in no way affects the need to obtain any required authorizations from other agencies of the United States Government or from the competent authorities of countries of origin, transit and destination.

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e. The special permit holder must maintain a record of all activity conducted under the authority granted in this special permit.

f. The record must contain a complete listing and number of shipments made to include:

(1) Dates of Shipment.

(2) Description of each type of shipment (to include origination/destination).

g. All of the above information must be made available upon request to a DOT representative or an enforcement Official.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo-only aircraft.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each aircraft or motor vehicle used to transport packages covered by this special permit. The shipper must furnish a copy of this special permit to the air carrier before or at the time the shipment is tendered.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

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Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Steve H/Andrew Eckenrode/kah